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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,753	01/28/2004	Janet W. Rivett	031456/272026	2267

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EXAMINER

NUTTER, NATHAN M

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 07/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/766,753

Applicant(s)

RIVETT ET AL.

Examiner

Nathan M. Nutter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 15-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

In response to the amendment filed 1 May 2006, the following is placed in effect.

The rejection of claims 1, 2, 10 and 11 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, is hereby expressly withdrawn.

The rejection of claims 1-14 are rejected under 35 U.S.C. 112, first paragraph, is hereby expressly withdrawn.

The following rejections are being maintained.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-14 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Khanarian (Polymer Engineering and Science).

The reference to Khanarian (Polymer Engineering and Science) teaches the manufacture of a polymer blend composition that may comprise a cyclic olefin copolymer, which may comprise norbornene and the acyclic mer, ethylene, as recited in claims 1, 3, 4 and 5, with a styrenic elastomer copolymer that includes a saturated alkene monomer, wherein the styrene content embraces that recited herein for claims 1 and 2. Note the Abstract and Table 2 at page 2592. The Abstract further discloses the styrenic elastomer to embrace styrene-ethylene-butylene-styrene (SEBS) and styrene – butadiene-styrene as recited in instant claims 6, 7, 8 and 9. At page 2592, second column, the final paragraph teaches a styrenic copolymer content of 10% w/w, as recited in instant claims 10 and 11. The recitations of claims 13 and 14 are shown at page 2590, second column. As regards the recitations of haze values and peak impact energy in claims 1 and 12, these characteristics are deemed to be inherent. Nothing is recited in the claims which might be construed as different from that disclosed by the reference with regards to the constituents, their respective monomer contents, or compositional limitations which would produce these characteristics. As such, these characteristics are deemed to be inherent, and anticipated by the teachings of the article.

Claims 1-11 are rejected under 35 U.S.C. 102(b) as anticipated by Abe et al (US 5,854,349).

The reference to Abe et al (US 5,854,349) teaches the manufacture of a polymer blend composition that may comprise a cyclic olefin copolymer, which may comprise norbornene, tetracyclododecane, bicyclo[2,2,1]-2-heptene, among others, and the

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acyclic monomers, ethylene or propylene, as recited in claims 1, 3, 4 and 5, with a styrenic elastomer copolymer that includes a saturated alkene monomer, wherein the styrene content embraces that recited herein for claims 1 and 2. Note column 5 (lines 22-35) for the acyclic monomer and column 5 (lines 36 et seq.), in particular column 8 (lines 29-67) for the cyclic olefin monomers. The reference further discloses the styrenic elastomer to embrace styrene-ethylene-butylene-styrene (SEBS), styrene-butadiene block copolymers and styrene-propylene-styrene (SEPS) as recited in instant claims 6, 7, 8 and 9, at column 4 (lines 27-36). At column 2 (lines 37-44), the reference teaches a styrenic copolymer content of 40% by weight, as recited in instant claims 10 and 11. As regards the recitations of haze values and peak impact energy in claims 1 and 12, these characteristics are deemed to be inherent. Nothing is recited in the claims which might be construed as being different from that disclosed by the reference with regards to the constituents, their respective monomer contents, or compositional limitations which would produce these characteristics. As such, these characteristics are deemed to be inherent, and anticipated by the teachings of the patent.

Claims 1-7 and 10-14 are rejected under 35 U.S.C. 102(b) as anticipated by Miyamoto et al (EP 0 995 776).

The reference to Miyamoto et al (EP 0 995 776) teaches the manufacture of a polymer blend composition that may comprise a cyclic olefin copolymer, which may comprise norbornene and the acyclic monomer, ethylene, as recited in claims 1, 3, 4 and 5, with a styrenic elastomer copolymer that includes a saturated alkene monomer, wherein the styrene content embraces that recited herein for claims 1 and 2. Note

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paragraphs [0012] and [0013] and the formulas denoted as I through VIII for the cyclic olefin copolymer. Note paragraph [0018] which teaches the relative compositional limitations of the copolymers, as recited in instant claim 2. At paragraph [0016], the reference discloses the use of the styrenic monomers recited in claim 6 and the copolymer comprising styrene and isobutylene as recited in claim 7. At paragraph [0008], the reference teaches a styrenic copolymer content which clearly embraces that recited in instant claims 10 and 11. The recitations of claims 13 and 14 are shown at paragraph [0012]. As regards the recitations of haze values and peak impact energy in claims 1 and 12, these characteristics are deemed to be inherent. Nothing is recited in the claims which might be construed as different from that disclosed by the reference with regards to the constituents, their respective monomer contents, or compositional limitations which would produce these characteristics. As such, these characteristics are deemed to be inherent, and anticipated by the teachings of the reference.

Claims 1-7 and 10-12 are rejected under 35 U.S.C. 102(b) as anticipated by Moriya et al (US 4,918,133).

The patent to Moriya et al (US 4,918,133) teaches the production of a polymer blend composition that may comprise a cyclic olefin copolymer (denoted as component (A) in the patent) which may comprise norbornene, bicyclo[2,2,1]-2-hept-2-ene, 1-methylbicyclo[2,2,1]-2-hept-2-ene or hexacyclo[6,6,1,1^{3,6},1^{10,13},0^{2,7},0^{9,14}]-4-heptadecene, as recited in instant claims 1 and 3, and the acyclic monomer, ethylene, as recited in claims 1, 3, 4 and 5, with a styrenic elastomer copolymer (denoted as component (B) (iv) in the patent) that includes a saturated alkene monomer, including butadiene, of

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claims 6 and 7, wherein the styrene content embraces that recited herein for claims 1 and 2. Note the Abstract for the broad disclosure. Further, note formulae I-IV for the cyclic olefin monomer at columns 5 and 6, column 6 (line 4) to column 7 (line 36) and the formulae of Tables 1 and 2. Note the paragraph bridging column 17 to column 18 for the elastomer constituent and the styrenic content as recited in claim 2. At column 3 (lines 34-40), the reference teaches a styrenic copolymer content of 1 to 100 parts by weight of (B) based on 100 parts by weight of (A), which embraces the range recited in instant claims 10 and 11. As regards the recitations of haze values and peak impact energy in claims 1 and 12, these characteristics are deemed to be inherent. Nothing is recited in the claims which might be construed as different from that disclosed by the reference with regards to the constituents, their respective monomer contents, or compositional limitations which would produce these characteristics. As such, these characteristics are deemed to be inherent, and anticipated by the teachings of the patent.

Claims 1, 3-7 and 10-12 are rejected under 35 U.S.C. 102(e) as anticipated by Zen et al (US 2002/0128392).

The patent to Zen et al (US 2002/0128392), discloses the production of a polymer blend composition that may comprise a cyclic olefin copolymer (denoted as component (C) in the patent) which may comprise norbornene or bicyclo[2,2,1]-2-hept-2-ene, as recited in instant claims 1 and 3, and the acyclic monomer, ethylene or propylene, as recited in claims 1, 3, 4 and 5, with a styrenic elastomer copolymer (denoted as component (A) in the patent) that includes a saturated alkene monomer,

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including butadiene, of claims 6 and 7. Note the Abstract for the broad disclosure.

Further, note paragraphs [0031]-[0045] and the many formulae for the cyclic olefin monomer. Note paragraphs [0014]-[0017] for the elastomer constituent.

At paragraph [0010], the reference teaches a styrenic copolymer content of "1 part to 95 parts by weight of component (A),...and 1 part to 95 parts by weight of component (C)," which range embraces the range recited in instant claims 10 and 11. As regards the recitations of haze values and peak impact energy in claims 1 and 12, these characteristics are deemed to be inherent. Nothing is recited in the claims which might be construed as different from that disclosed by the reference with regards to the constituents, their respective monomer contents, or compositional limitations which would produce these characteristics. As such, these characteristics are deemed to be inherent, and anticipated by the teachings of the article.

Response to Arguments

Applicant's arguments filed 1 May 2006 have been fully considered but they are not persuasive.

With regard to the rejection of claims 1-14 under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Khanarian (Polymer Engineering and Science), it is pointed out that the instant claims are not drawn to a transparent blend. Claim 1 recites a "haze value of 40% or less," which is not necessarily transparent, as applicants contend their product to be. The conclusion applicants attempt to formulate from Khanarian is drawn to desired results of applicants,

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but is not warranted in view of the teachings of the reference. Applicants argument regarding their conclusion of "according to the teachings of Khanarian, the elastomers described in Table 2, other than D1184, would not have good optical properties, such as haze value," is speculative, at best. However, this is not deemed to be convincing since applicants themselves employ a cyclic olefin copolymer of ethylene with the monomer norbornene, blended with SEBS. Applicants argue suitability of this for their composition, but is not suitable to proffer the same results for Khanarian. By applicants contentions, a skilled artisan would know how to manipulate haze values based on styrene content. Regardless, the reference teaches at the Abstract that SEBS copolymer is added as a compatibilizer to the styrene-butadiene copolymer. No direct comparison has been made. As such, nothing unexpected or surprising has been shown on the record.

With regard to the rejection of claims 1-11 under 35 U.S.C. 102(b) as anticipated by Abe et al (US 5,854,349), applicants opine that "(a)lthough Abe states that the SEPS and SEBS may be used, it does not disclose or suggest an elastomeric copolymer comprising at least one aromatic vinyl mer and at least one saturated alkene mer, and wherein the styrene content is between 14 and 39 wt%." This is not convincing specifically because the reference to Abe et al teaches the use of Kratons, exactly as disclosed herein at paragraph [0029]. Note column 4 (lines 37-38). These polymers would be expected to be identical and have the same constitutional limitations. Applicants haven't shown on the record why they would not.

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With regard to the rejection of claims 1-7 and 10-14 under 35 U.S.C. 102(b) as anticipated by Miyamoto et al (EP 0 995 776), the reference clearly shows the elastomer to include styrene and isobutylene as recited herein at paragraph [0016]. The employment of an aromatic conjugated diene copolymer is taught as an additional constituent. Applicants claims recite "comprising" which would not exclude that constituent IF it were required, which it isn't. A reference is taken for the entirety of its teachings. The instant claims do not exclude this aromatic conjugated diene copolymer. The reference teaches a choice, which applicants conveniently overlook or ignore.

With regard to the rejection of claims 1-7 and 10-12 under 35 U.S.C. 102(b) as anticipated by Moriya et al (US 4,918,133), the same arguments apply as for Miyamoto et al, above.

With regard to the rejection of claims 1, 3-7 and 10-12 under 35 U.S.C. 102(e) as anticipated by Zen et al (US 2002/0128392), the same arguments apply as for Miyamoto et al, above.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

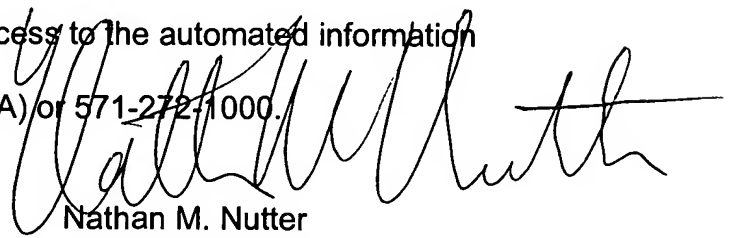
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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan M. Nutter whose telephone number is 571-272-1076. The examiner can normally be reached on 9:30 a.m.-6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Nathan M. Nutter
Primary Examiner
Art Unit 1711

nmn

13 July 2006